

Customer No.: 31561
Application No.: 10/604,364
Docket No.: 8309-US-PA-1

REMARKS

Present Status of the Application

The non-final Office Action rejected claims 1-8, 10-14 and 16 under 35 U. S. C. 102(e) as being anticipated by Mei (US 2002/0097495). Claim 9 is rejected as being unpatentable over Mei in view of Ulland et al. (US 2002/0192569). Claim 15 is rejected as being unpatentable over Mei in view of Nishi (US 6,522,386). Reconsideration and allowance of those claims are respectfully requested.

Discussion of Claim Rejection under 35 USC 102(e)

The non-final Office Action rejected claims 1-8, 10-14 and 16 under 35 U. S. C. 102(e) as being anticipated by Mei. Applicants respectfully disagree and traverse the above rejection as set forth below.

To anticipate a claim, the reference must disclose/teach/suggest all limitations in that claim.

In Mei, a maskless lithography system is disclosed. For performing digital lithography onto a subject, the computer design system 36 produces digital data to the pixel panel 38 (the pattern generator) for creating the pixel-mask pattern. The light source 32 provides light beam 48 through the first lens system 34 and onto the pixel panel 38. Light reflected or through the pixel-mask pattern of the pixel panel 38 then passes through the second lens system and onto the subject 42. By this manner, the pixel-mask pattern is projected onto the resist coating 46 of the subject 42.

Customer No.: 31561
Application No.: 10/604,364
Docket No.: 8309-US-PA-1

In claim 1 of the application, a maskless substrate exposure apparatus comprises: a light source including a plurality of point light sources; and a scan control system, converting the pattern into a timing signal to control light (lights emitting) and dark (no lights emitting) status of the point light sources.

The Examiner compares the pixel panel 38 in Mei to the light source and the computer design system 36 in Mei to the scan control system. However, in general knowledge, a light source emits lights. In Mei, the light source is the element 32, not the element 38. The pixel panel 38 in Mei cannot emit light, but instead, the pixel panel 38 only reflects or passes through lights, as stated in [0031] and [0066]. As stated in [0031], the pixel panel is a DMD providing mirror array and each mirror can selectively direct (as stated in the description, the term "direct" means reflect ([0031]) or passing through (if the pixel panel 38 is LCD or SLM, [0066])) the light 48 from the light source 32 towards the subject (the ON state) or away from the subject (the OFF state). Therefore, it is clearly that the ON and OFF states of the pixel panel 38 in Mei refer to the light generated from the light source is directed to or not directed to the subject by the pixel panel 38 and in general concept, a mirror or LCD is not referred to a light source. Furthermore, Mei does not disclose the light source 32 including a plurality of point light source.

Secondly, in Claim 1 of the application, the scan control system converts the pattern to be transferred into a timing signal for controlling the status of the light source. However, in Mei, the computer design system 36 provides digital data for the pixel panel 38. Then, suitable patterns are generated by the pixel panel 38 based on the digital data from the system 36 and as

Customer No.: 31561
Application No.: 10/604,364
Docket No.: 8309-US-PA-1

shown in FIG. 11, pixel elements 156a~156d may be ON (directed) or OFF (not directed) according to the pixel pattern, [0067] and then pass through the optic system 150 and onto the subject 42 for performing lithography on the subject. In Mei, the patterns generated by the pixel panel 38 are not further converted by the system 36. So, Mei's system 36 does not convert the patterns into the timing signal for controlling the light source. Therefore, it is clear that the system 36 in Mei is different from the control system in Claim 1.

Because independent claim 1 is allowable over the prior art of record, its dependent claim 2-16 are allowable as a matter of law, for at least the reason that the dependent claims contain all features/elements of the independent claim.

Discussion of Claim Rejection under 35 USC 103(a)

Claim 9 is rejected as being unpatentable over Mei in view of Ulland. Claim 15 is rejected as being unpatentable over Mei in view of Nishi. Applicants respectfully disagree and traverse the above rejection as set forth below.

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a reference, the cited reference must disclose, teach, or suggest, either implicitly or explicitly, all elements/features of the claims at issue.

As discussed above, Claim 1 distinguishes from Mei because Mei does not disclose, teach, or suggest all features in claim 1. The combination of Mei and Ulland would not render claim 9

Customer No.: 31561
Application No.: 10/604,364
Docket No.: 8309-US-PA-1

obvious, and the rejection should be withdrawn. Similarly, the combination of Mei and Nishi would not render claim 15 obvious, and the rejection should be withdrawn.

Prior Art Made of Record

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

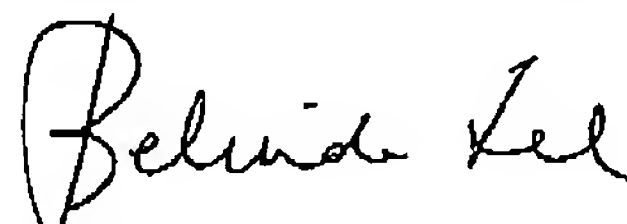
Customer No.: 31561
Application No.: 10/604,364
Docket No.: 8309-US-PA-1

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-16 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney.

Date : *Dec. 6, 2005*

Respectfully submitted,



Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office
7th Floor-1, No. 100
Roosevelt Road, Section 2
Taipei, 100
Taiwan
Tel: 011-886-2-2369-2800
Fax: 011-886-2-2369-7233
Email: belinda@jciipgroup.com.tw ;usa@jciipgroup.com.tw